

투석환자에서 대동맥 석회화 진행의 위험 요인

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Risk Factors of Progression of Aortic Arch Calcification in Patients with Maintenance Hemodialysis and Peritoneal Dialysis

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Aim: Vascular calcification is accelerated during the dialysis and known as an important risk factor for cardiovascular disease. Progression of AoAC can be simply estimated with an AoAC score (AoACS) on chest radiography. The objective of this study was to evaluate the risk factors of the progression of AoAC.

Methods: The enrolled study subjects were 125 hemodialysis and 59 peritoneal dialysis patients, newly treated at the dialysis unit. In the patients who had undergone chest radiographies before initial dialysis therapy and every year, we estimated AoACS on chest radiographies and then divided into two groups by the presence or absence of the AoAC progression. We also compared the baseline clinical and biochemical profiles in two groups.

Results: Eighty-five (46.2%) were men and the mean age was 58.6 ± 12.7 years. 76 patients (41.3%) had AoAC before initial dialysis with the mean AoACS of 13.0 ± 20.4 . The mean duration of follow-up of AoACS was 2.7 ± 1.0 years. The half of the patients (50%) had the progression and the others (50%) non-progression of AoAC. Old age more than 65 years ($p=0.003$), dialysis duration ($p=0.004$), diabetes ($p=0.015$) and the presence of AoAC at baseline ($p=0.001$) were related to the progression of AoAC. No significant association was detected between the AoAC progression and baseline clinical parameters including gender, obesity, hypertension and dialysis type. In multivariate analysis, the duration of dialysis ($p=0.004$) and the presence of AoAC at baseline ($p=0.001$) were independent risk factors of the progression of AoAC in dialysis patients.

Conclusion: The duration of dialysis and the presence of AoAC before initial dialysis were significantly related to the progression of AoAC in dialysis patients. We suggest that we should focus on the through management from pre-dialysis stage to prevent the progression of AoAC and reduce cardiovascular morbidity in chronic dialysis patients.

Key Words: 대동맥 석회화, 투석, 심혈관 합병증

Aortic arch calcification, Cardiovascular disease, Dialysis